

GENERAL INFORMATION
General information

| | |
|------------------------|---------------------|
| Typology | Ready to use silver |
| Color | Silver |
| Production process | Casting |
| Grain refinement level | High |
| Deoxidation level | Medium |

Commercial composition (%)

| | |
|----|------|
| AG | 93.0 |
| CU | 4.0 |
| ZN | 3.0 |

Melting Temperatures

| | |
|--------------------|-------|
| Solidus [°C] | 790.0 |
| Liquidus [°C] | 890.0 |
| Melting range [°C] | 100.0 |

FULL CHARACTERIZATION DATA
Color coordinates

| L * | a* | b* | c* | Yellow Index |
|------|------|-----|-----|--------------|
| 95.5 | -0.2 | 3.7 | 3.7 | 6.7 |

Mechanical characteristics

| | |
|---|-------|
| As cast hardness [HV 0.2] | 55.0 |
| Hardness after 70% area red. [HV 0.2] | 165.0 |
| Hardness after annealing [HV 0.2] | 60.0 |
| Double step age-hardening hardness [HV 0.2] | 120.0 |
| Single step age-hardening hardness [HV 0.2] | 90.0 |
| Tensile strength (Rm) [Mpa] | 255.0 |
| Yield strength (Rp0.2) [MPa] | 100.0 |
| Elongation at rupture (A) [%] | 33.0 |

Physical characteristics

| | |
|-----------------|------|
| Density [g/cm³] | 10.3 |
|-----------------|------|

General characteristics

| | |
|-------------------------|-------|
| As cast grain size [µm] | 270.0 |
|-------------------------|-------|

Product applications

Stone-in-place casting
Casting in closed systems
Casting without stones

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C]

POURING TEMPERATURES

| | Flask from [°C] | Flask to [°C] | Metal from [°C] | Metal to [°C] |
|--------------|-----------------|---------------|-----------------|---------------|
| < 0.5 mm | 560 | 600 | 990 | 1020 |
| 0.5 - 1.2 mm | 520 | 560 | 970 | 990 |
| > 1.2 mm | 480 | 520 | 950 | 970 |

Trees without stones

Let the flask cool down in the chamber for 1 minute after pouring. Take the flask out of the machine without shaking it, let it cool for 15 minutes in air, then quench in water.

Stone-in-place casting trees

Let the flask cool down for 30-45 minutes, then quench it in water.

Pickling

Dip in RADIAL solution (50 g/l conc. at 60°C) for 2 minutes, or in sulphuric acid (10% concentration at 50°C) for 5 minutes.

AGE HARDENING PROCESSING PARAMETERS
SINGLE STEP

Temperature [°C]

Time [min]

Quenching

AGE HARDENING

300.0

90.0

In air or in furnace

DOUBLE STEP

Temperature [°C]

Time [min]

Quenching

Homogenization

730.0

40.0

In water, immediate

Age-hardening

300.0

60.0

In air or in furnace